

Épreuve de DNL Anglais Physique-Chimie**Sujet n°1 – Série L-ES**

Durée de l'épreuve : 40 minutes

- 20 minutes de préparation
- 10 minutes de présentation et 10 minutes d'échange avec le jury

Georges Seurat's secrets

Document 1: Georges Seurat, French painter

Georges Seurat is chiefly remembered as the pioneer of the Neo-Impressionist technique commonly known as Divisionism, or Pointillism. Seurat's technique was to employ tiny juxtaposed dots of multi-colored paint that allow the viewer's eye to blend colors optically, rather than having the colors blended on the canvas or pre-blended as a material pigment. His innovations derived from new quasi-scientific theories about color and expression, yet the graceful beauty of his work is explained by the influence of very different sources. His success quickly propelled him to the forefront of the Parisian avant-garde.

From <http://www.theartstory.org/artist-seurat-georges.htm>

Document 2: Seurat's Young Woman Powdering Herself (1890)



pl. WOMAN POWDERING HERSELF. Probably 1889–1890. London, Courtauld Institute Galleries (Hence House Trustees)

In Georges Seurat's portrait of his mistress, Madeleine Knobloch, lies a hidden self-portrait that he covered over to protect his dignity.

The painting shows Ms Knobloch, an artist's model with whom he had a secret affair, applying make-up.

Seurat had originally painted his own likeness into the work, but the story goes that a friend - unaware of his relationship with Ms Knobloch - commented that it looked comical.

In response an embarrassed Seurat painted over it, thus depriving the world of his only self-portrait.

From <http://www.abc.net.au/news/2014-06-27/before-and-after-a-history-of-hidden-paintings/5536130>

Document 3: X-ray examination

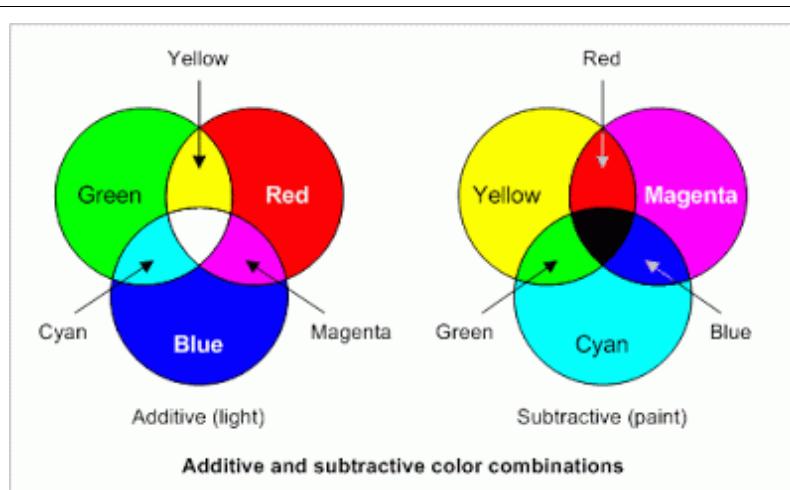
Do you own a valuable painting? Perhaps it is what you do not see which makes it valuable.

X-ray use has become a common practice among art authenticators. Not only does it unlock secrets underneath paintings, but it helps to establish authenticity. Types of paper, materials, preparatory sketches, changes to the composition, and other clues can be discovered through the use of an x-ray to prove the nature and origin of a painting.

X-rays can also be used to detect traces of minerals and other elements within the paint. These traces can be clues to when the painting was executed and where.

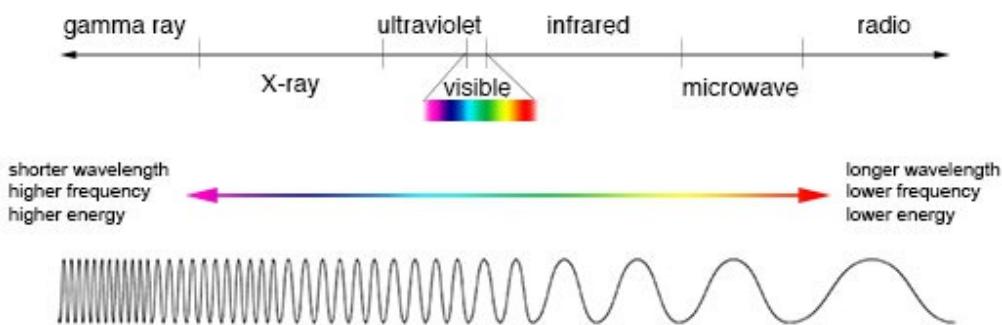
From <https://www.artexpertswebsite.com/scientific-tests/x-ray-examination.php>

Document 4: Additive and subtractive colour combinations



From : <https://nbmaa.wordpress.com/2013/07/16/new-media-brown-gillespies-milky-way/>
(New Britain Museum of American Art)

Document 5: Electromagnetic spectrum



From <https://imagine.gsfc.nasa.gov/science/toolbox/emspectrum1.htm>

Tasks :

- Present the documents.
- After describing the difference between additive and subtractive colour synthesis, explain the underlined sentence in document 1. You may link it to the vision process.
- Additive and subtractive synthesis of colours are used in other fields than paintings. Illustrate and develop.
- Comment on the technique used to discover hidden drawings under the painting.